

**PART 70 OPERATING PERMIT
OFFICE OF AIR MANAGEMENT
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES
MANAGEMENT DIVISION**

**Lilly Industries Inc.
546 West Abbott Street
Indianapolis, Indiana 46225**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15, IC 13-17 and the Code of Indianapolis and Marion County, Chapter 511.

Operation Permit No.: T097-7789-00040	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management Robert F. Holm, PH.D, Administrator Indianapolis Environmental Resources Management Division	Issuance Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and The Indianapolis Environmental Resources Management Division (ERMD). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a coating Manufacturing Operation.

Responsible Official:	Mr. Larry Dalton
Source Address:	546 W. Abbott Street, Indianapolis Indiana 46225
Mailing Address:	546 W. Abbott Street, Indianapolis Indiana 46225
SIC Code:	2851
County Location:	Marion
County Status:	Attainment for all criteria air pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) Orr & Sembower boiler, identified as emission unit OSB, is located in building 30. This boiler has a maximum heat input capacity 14.5 million Btu per hour and is fired with natural gas as the primary fuel and distillate oil as a backup fuel. The emissions from this facility are exhausted out one stack identified as stack ID OSB-S. This facility was constructed in 1960.
- (2) York Shipley boiler, identified as emission unit YSB, is located in building 30. This boiler has a maximum heat input capacity of 29 million Btu per hour and is fired with natural gas. The emissions from this facility are exhausted out one stack identified as stack YSB-S. This facility was constructed in 1982.
- (3) Coating Formulation and Packaging, identified as emissions unit CF1, is where paints, lacquer and enamel are formulated and subsequently packaged in tanker trucks, totes, drums and cans. The Coating Formulation area consists of the following equipment; 83 Mix tanks, 41 Variable Speed Air/Hydraulic Lift Dispersers, 2 Single Speed Air/Hydraulic Lift Disperser (UFD), 16 Paint Mills, and 168 Portable Kettles/tubs. Emissions due to coating formulation are fugitive and as such are dependent upon total production amounts rather than number of equipment items or capacities. Particulate emissions generated from the handling of dry ingredients in the formulation area are vented to one of thirteen portable baghouses or two stationary baghouses. The portable baghouses exhaust to ambient shop air out of integral vents identified as DC3 through DC15. The stationary baghouses exhaust to one of two stacks identified as DC 1 and DC 2. The Coating Packaging area consists of five stationary filling stations and ten portable filling stations. The maximum loading rate for each loading station ranges from 10 to 12 gallons per minute. The Coating Formulation and Packaging processes were installed before 1980.

- (4) Brighton Resin Kettle, identified as emission unit BRK, is located in building 22. The resin kettle is used to produce primarily alkyd and polyester resins in a batch reactor. This kettle is fired with natural gas and has a maximum rated heat input capacity of 2.7 million Btu per hour. The process emissions from the kettle are vented to a condenser which exhausts out stack BRK-1. Solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. Particulate emissions generated during the addition of dry ingredients are vent to a scrubber which exhaust out stack BRK-2. Combustion emissions from the 2.7 million Btu per hour burner are not controlled and are exhausted out stack BRK-3. This facility was installed prior to 1965.
- (5) Blaw Knox Electro-Vapor Resin Kettle, identified as emission unit EVRK, is located in building 22. The Electro-Vapor Resin Kettle can be operated as a resin kettle used to produce Alkyd resins in a batch operation or as a solvent recovery device used to recover solvents from solvent laden water generated from resin production. The process emissions from resin cooking and solvent recovery operations are vented to a condenser which exhausts out stack EVRK-1. During resin production solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. The particulate emissions generated from the addition of dry ingredients are vented to a scrubber which exhaust out stack EVRK-2. This facility was installed in prior to 1960.
- (6) Industrial Process Steam Kettle, identified as emission unit SK, is located in building 22. The Steam Kettle can be operated as a solvent-recovery device used to recover solvents from solvent-laden water generated from resin production or used for the warm blending of anodic and cathodic acrylic coatings. The emissions from this facility are exhausted out two separate stacks identified as stacks SK-1 and SK-2. The emissions exhausted out stack SK-1 are controlled by a shell-and-tube condenser. This facility was installed prior to 1965.
- (7) Four (4) resin thinning tanks, identified as emission unit TT-1 through TT4. The intermediate product from the resin kettles is dropped into a thinning tank that contains solvents used to quench the reaction. Thinning tanks TT-1 and TT-2 are each controlled by a separate condenser which exhausts out stacks TT-1 and TT-2, respectively. Thinning tanks TT-3 and TT-4 are uncontrolled unit and are exhausted out stacks TT-3 and TT-4, respectively. This facility was installed prior to 1980.
- (8) Tote paint spray booth, identified as emission unit SB28, is located in building 28. This paint booth is used to coat metal totes. The coating application method is air atomization. Particulate emissions are controlled by a dry filter. Emissions from this unit are exhausted out one stack identified as stack vent SB28-S. This facility was constructed in 1977.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Trichloroethylene degreaser, D-1, with a maximum throughput to 120 gallons per 12 months).

- a) Cold Cleaning Operations which consists of 30 portable cold cleaning units of various sizes used to clean production and laboratory related tools and small machine parts. These cold cleaning units are charged with reclaim solvent. VOC emissions from these cold cleaning units are emitted to the building. Dirty solvents are sent back to the solvent recovery unit (SRU) and reused.
- (2) Other insignificant emitting activities with potential emissions less than the emissions level specified in 326 IAC 2-7-1(21)(A) through (C)
 - (a) Pilot Resin Kettle, maximum process capacity is 800 pounds per batch, minimum batch process time is 12 hours, emissions are controlled by a condenser. This emission unit is used for research and development. This emission unit was installed prior to January 1, 1980.
 - (b) Seven (7) Quality Assurance Paint Booths, over spray is controlled by a dry filter. These emission units are used to test coatings produced at the source. This emission unit was installed prior to January 1, 1980.
 - (c) One hundred and seventy (170) fixed roof, above ground storage tanks ranging in size from 180 to 9,608 gallons. These tanks are used to store solvents, resins, and other raw materials and intermediates. These emission units were installed prior to January 1, 1980.
 - (d) One Luwa Thin Film Evaporator (Solvent Recovery Unit, or SRU), Model #LN0200, used to reclaim solvent from waste materials. This unit is operated under vacuum, typically 28 in. Hg., pulled at the condenser end of the unit. This emission unit was installed prior to January 1, 1987.
 - (e) Tank Cleaning Operations involves rinsing and cleaning paint formulation equipment (mixing vats, dispersers, mills, etc.) either manually or by machines with reclaimed organic solvents. The dirty reclaimed solvent is sent back to the Luwa Thin Film Evaporator (Solvent Recovery Unit, SRU) for recovery of the solvents. Volatile Organic Compounds which evaporate during this process are emitted into the room air. This emission unit was existing prior to January 1, 1980.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15 as set out in this permit in the Section B condition entitled "Permit Shield."

B.2 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, Code of Indianapolis and Marion County Section 511, 326 IAC 1-2, IAPCB Reg. 1-2-2 and 326 IAC 2-7 shall prevail

B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f), IC 13-15-5-3 and Code of Indianapolis and Marion County Section 4-50.

B.4 Enforceability [326 IAC 2-7-7(a)]

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the sources potential to emit, are enforceable by IDEM.
- (b) The IAPCB has adopted by reference state rules listed in Attachment A of this permit. The version adopted by reference includes all amendments, additions and repeals filed with the Secretary of State through August 10, 1997 and published in the Indiana Register September 1, 1997, unless otherwise indicated in the adoption by reference. For the purposes of this permit, all state rules adopted by reference by the IAPCB are enforceable by ERMD using local enforcement procedures.
- (c) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.
- (d) All terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by ERMD using local enforcement procedures.

B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.6 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is

invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) The Permittee shall furnish to IDEM, OAM, and ERMD within a reasonable time, any information that IDEM, OAM, and ERMD may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, and ERMD copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, and ERMD along with a claim of confidentiality under 326 IAC 17 and IAPCB Reg. 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application forms, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;

- (3) Whether compliance was based on continuous or intermittent data;
- (4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
- (5) Any insignificant activity that has been added without a permit revision; and
- (6) Such other facts, as specified in Sections D of this permit, as IDEM, OAM, and ERMD may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD.

B.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, and ERMD within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Management,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

ERMD

Telephone No.: 317-327-2234 (ask for Data Compliance)
Facsimile No.: 317-327-2274

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, and ERMD may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, and ERMD by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
 - (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that:
 - (1) The applicable requirements are included and specifically identified in this permit; or
 - (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
 - (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, and ERMD shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
 - (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application.
 - (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
 - (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
 - (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAM, and ERMD has issued the modifications. [326 IAC 2-7-12(c)(7)]
 - (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAM, and ERMD has issued the modification. [326 IAC 2-7-12(b)(8)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

-
- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)]
 - (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, and ERMD determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
 - (c) Proceedings by IDEM, OAM, and ERMD to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
 - (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, and ERMD at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, and ERMD may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.18 Permit Renewal [326 IAC 2-7-4]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and ERMD and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due. [326 IAC 2-5-3]
- (2) If IDEM, OAM, and ERMD, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAM, and ERMD, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, and ERMD, any additional information identified as being needed to process the application.
 - (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAM, and ERMD fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a) and the following additional conditions:

- (a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

B.22 Operational Flexibility [326 IAC 2-7-20]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-1 and IAPCB Reg. 2-1-1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015

Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, and ERMD in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance

with 326 IAC 2-7-5(9). No prior notification of IDEM, OAM, or U.S. EPA is required.

- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.23 Construction Permit Requirement [326 IAC 2] [IAPCB Reg. 2-1-1]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2 and IAPCB Reg. 2-1-1.

B.24 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, ERMD and U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-7-6(6)]
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, and ERMD or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, and ERMD nor an authorized representative, may disclose the information unless and until IDEM, OAM, and ERMD makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 and IAPCB Reg. 17 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9][IAPCB Reg. 17]
 - (2) The Permittee, IDEM, OAM, and ERMD acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]

Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch and ERMD, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) IDEM, OAM, and ERMD shall reserve the right to issue a new permit.

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAM, and ERMD, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]
Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- C.2 Opacity [326 IAC 5-1]
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B). This condition is not federally enforceable.
- The Permittee shall not open burn any material except as provided in Chapter 4, Code of Indianapolis and Marion County and IAPCB Reg 4-1. Provisions of the code that are more stringent than 326 IAC 4-1 are locally enforceable only by ERMD.
- C.4 Incineration [326 IAC 4-2][326 IAC 9-1-2]
The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.
- C.5 Fugitive Dust Emissions [326 IAC 6-4] [IAPCB Reg. II-4]
The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions) and IAPCB Reg. II-4. 326 IAC 6-4-2(4) and IAPCB Reg. II-4 is not federally enforceable.
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation, except for baghouses DC-1 through DC-15 and Scrubbers BRK-S

and EVRK-S, which will only be operated when raw materials that have the potential to release particulate emissions are being dispensed into the manufacturing equipment.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Enforcement Section, Asbestos Program
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.9 Compliance Schedule [326 IAC 2-7-6(3)]

The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notify:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.11 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet applicable the requirements of this permit shall be

performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, and ERMD that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, and ERMD that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition, section C.14(a) of this permit;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

- (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM and ERMD, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM and ERMD shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM and ERMD within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM and ERMD reserves the authority to use enforcement activities to resolve noncompliant stack tests.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
- (1) Contain actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Contain actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
and
- Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.

C.17 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

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- (a) With the exception of performance tests conducted in accordance with Section C-

Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond his/her control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM and ERMD may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, or ERMD representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or ERMD makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or ERMD within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:

- (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements mandated by this permit and not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.

- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

- (1) Orr & Sembower boiler, identified as emission unit OSB, is located in building 30. This boiler has a maximum heat input capacity 14.5 million Btu per hour and is fired with natural gas as the primary fuel and distillate oil as a backup fuel. The emissions from this facility are exhausted out one stack identified as stack ID OSB-S. This facility was constructed in 1960.
- (2) York Shipley boiler, identified as emission unit YSB, is located in building 30. This boiler has a maximum heat input capacity is 29 million Btu per hour and is fired with natural gas. The emissions from this facility are exhausted out one stack identified as stack YSB-S. This facility was constructed in 1982.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter Emissions [326 IAC 6-2-2]

That pursuant to 326 IAC 6-2-2(a) (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from emission units OSB and YSB shall be limited to 0.57 and 0.48 pounds per million BTU heat input respectively.

D.1.2 Sulfur Dioxide Emission Limitations [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 the Sulfur Dioxide (SO₂) emissions from emission unit OSB shall not exceed five tenths (0.5) pounds per million Btu heat input when combusting distillate oil.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1)]

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the Particulate Matter limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

D.1.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-3-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by either:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from emission unit OSB, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-2.1.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.5 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A semi-annual summary of the information to document compliance with Condition D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the semi-annual period being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (3) Coating Formulation and Packaging, identified as emissions unit CF1, is where paints, lacquer and enamel are formulated and subsequently packaged in tanker trucks, totes, drums and cans. The Coating Formulation area consists of the following equipment; 83 Mix tanks, 41 Variable Speed Air/Hydraulic Lift Dispersers, 2 Single Speed Air/Hydraulic Lift Disperser (UFD), 16 Paint Mills, and 168 Portable Kettles/tubs. Emissions due to coating formulation are fugitive and as such are dependent upon total production amounts rather than number of equipment items or capacities. Particulate emissions generated from the handling of dry ingredients in the formulation area are vented to one of thirteen portable baghouses or two stationary baghouses. The portable baghouses exhaust to ambient shop air, out of integral vents identified as DC3 through DC15. The stationary baghouses exhaust to one of two stacks identified as DC 1 and DC 2. The Coating Packaging area consists of five stationary filling stations and ten portable filling stations. The maximum loading rate for each loading station ranges from 10 to 12 gallons per minute. The Coating Formulation and Packaging processes were installed before 1980.
- (4) Brighton Resin Kettles, identified as emission unit BRK, is located in building 22. The resin kettle is used to produce primarily alkyd and polyester resins in a batch reactor. This kettle is fired with natural gas and has a maximum rated heat input capacity of 2.7 million Btu per hour. The process emissions from the kettle are vented to a condenser which exhausts out stack BRK-1. Solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. Particulate emissions generated during the addition of dry ingredients are vent to a scrubber which exhaust out stack BRK-2. Combustion emissions from the 2.7 million Btu per hour burner are not controlled and are exhausted out stack BRK-3. This facility was installed prior to 1965.
- (5) Blaw Knox Electro-Vapor Resin Kettles, identified as emission unit EVRK, is located in building 22. The Electro-Vapor Resin Kettle can be operated as a resin kettle used to produce Alkyd resins in a batch operation or as a solvent recovery device used to recover solvents from solvent laden water generated from resin production. The process emissions from resin cooking and solvent recovery operations are vented to a condenser which exhausts out stack EVRK-1. During resin production solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. The particulate emissions generated from the addition of dry ingredients are vented to a scrubber which exhaust out stack EVRK-2. This facility was installed in prior to 1960.

Facility Description [326 IAC 2-7-5(15)]

- (6) Industrial Process Steam Kettle, identified as emission unit SK, is located in building 22. The Steam Kettle can be operated as a solvent-recovery device used to recover solvents from solvent-laden water generated from resin production or used for the warm blending of anodic and cathodic acrylic coatings. The emissions from this facility are vented to a shell-and-tube condenser, which exhausts out one stack, identified as stack SK-S. This facility was installed prior to 1965.
- (7) Four (4) resin thinning tanks, identified as emission unit TT-1 through TT4. The intermediate product from the resin kettles is dropped into a thinning tank that contains solvents used to quench the reaction. Thinning tanks TT-1 and TT-2 are each controlled by a separate condenser which exhausts out stacks TT-1 and TT-2, respectively. Thinning tanks TT-3 and TT-4 are uncontrolled unit and are exhausted out stacks TT-3 and TT-4, respectively. This facility was installed prior to 1980.
- (8) Tote paint spray booth, identified as emission unit SB28, is located in building 28. This paint booth is used to coat metal totes. The coating application method is air atomization. Particulate emissions are controlled by a dry filter. Emissions from this unit are exhausted out one stack identified as stack vent SB28-S. This facility was constructed in 1977.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Organic Solvents [326 IAC 8-6]

- a) The VOC emissions from the emission units listed in paragraphs (a)(1) and (a)(2) of this condition shall be limited to 99 tons per (12) twelve consecutive month period such that the Organic Solvent Regulation 326 IAC 8-6 does not apply.
 - (1) The following significant emission units are included in this emissions cap; Coating Formulation/Packaging (CF-1), Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK), Steam Kettle (SK), Thinning Tank (TT), Totes Spray Paint Booth (SB28), and Fugitive Equipment Leaks (F-1) and the Orr & Stembower boiler (OSB).
 - (2) The following insignificant emission units are included in this emissions cap; Six Seven Quality Assurance Paint Booths (QA1 through QA7), Tank Cleaning Operations (TC), Pilot Resin Kettle (PK), Storage Tanks (ST) and Solvent Recovery Unit (SRU).
- b) For the purpose of demonstrating compliance with paragraph (a) of this condition, the Permittee shall limited the VOC emissions from the emission units listed in paragraph (b)(1) of this condition to less than or equal to 77.7 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation after issuance of this permit, the VOC emissions shall be limited such that the total VOC from the emission units listed in paragraph (b)(1) of this condition shall not exceed 77.7 ton.
 - (1) Coating Formulation/Packaging (CF-1), Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK), Steam Kettle (SK), Thinning Tanks (TT), Totes Spray Paint Booth (SB28), Seven Quality Assurance Paint Booths (QA1 through QA7) and Tank Cleaning Operations (TC).

- c) For the purpose of demonstrating compliance with paragraph (a) of this condition, the VOC emissions from the emissions units identified in paragraph (c)(1) of this condition are fixed at 21.3 tons for any twelve (12) consecutive month period. The fixed VOC emission rate of 21.3 tons per twelve (12) consecutive month period for the emission units identified in (c)(1) of this condition is based on the sum of the potential emissions for these units. Any changes to the emission units identified in condition (c)(1) which increases the units potential emissions of VOCs shall require approval prior to implementing the change.

- (1) Fugitive Equipment Leaks (F-1), Pilot Resin Kettle (PK), Storage Tanks (ST), Solvent Recovery Unit (SRU) and the Orr & Stembower boiler (OSB).

D.2.2 Particulate Emissions [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the Coating Formulation (CF-1 stacks DC1 through 15), Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK), and Totes Spray Paint Booth (SB28) shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

For Coating Formulation (CF-1 stacks DC1 through DC15) P is equal to 1.5 tons per hour and E is equal to 5.38 pounds per hour.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Coating Formulation (CF-1), Steam Kettle (SK), Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK) and any pollution control devices.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1)]

Testing of these emission units is not specifically required by this permit. However, if testing is required, compliance with the Volatile Organic Compound or Particulate Matter limit specified in Conditions D.2.1 or D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

D.2.5 VOC Emissions

Compliance with Condition D.2.1 shall be demonstrated at the end of each month based on the total volatile organic compound emissions for the applicable compliance period. The methodology for calculating the monthly emissions is as follows:

- a) For the purposes of this condition, all coatings formulated shall be grouped into one of the following categories based on the end use of the coating; Office Equipment Coatings, Clear Finishes, Pigmented Wood Finishes, Electrodeposition Finishes, Coil Coatings,

General Metal Finishes and Pigmented Automotive Coatings. On a monthly basis the Permittee shall calculate the VOC emissions from formulation by multiplying the monthly weight of finished and intermediate product in each coating category by the corresponding emissions factor for that coating category. The Permittee shall use the emission factors in the table below to calculate the VOC emissions from coating formulation.

Coating Category	Formulation Emission Factor (lbs VOC/lb of Coating Produced)
Office Equipment Coatings	0.0006
Clear Finishes	0.0002
Pigmented Wood Finishes	0.0041
Electrodeposition Finishes	0.0006
Coil Coating	0.0009
General Metal Finishes	0.0026
Pigmented Automotive Coatings	0.0007

- b) For the purposes of this condition, all coatings packaged shall be grouped into one of the following categories based on the end use of the coating; Office Equipment Coatings, Clear Finishes, Pigmented Wood Finishes, Electrodeposition Finishes, Coil Coatings, General Metal Finishes and Pigmented Automotive Coatings. On a monthly basis the Permittee shall calculate the VOC emissions from packaging by multiplying the monthly weight of product packaged in each coating category by the corresponding emissions factor for that coating category. The Permittee shall use the emission factors in the table below to calculate the VOC emissions from coating packaging.

Coating Category	Formulation Emission Factor (lbs VOC/lb of Coating Packaged)
Office Equipment Coatings	0.00007
Clear Finishes	0.00020
Pigmented Wood Finishes	0.00007
Electrodeposition Finishes	0.000005
Coil Coating	0.00001
General Metal Finishes	0.00002
Pigmented Automotive Coatings	0.00020

- c) The Permittee shall calculate the monthly VOC emissions from the Brighton Resin Kettle, identified as emission units BRK . The VOC emissions shall be calculated by multiplying the monthly weight of resins produced in the Brighton Kettle by the AIRs emission factor

(SCC 3-01-018-38) of 4.8 pounds of VOC per tons of resin produced

- d) The Permittee shall calculate the monthly VOC emissions from the Electro-Vapor Resin Kettle, identified as emission unit EVRK. The VOC emissions from the Electric Vapor Resin Kettle shall be calculated as follows for each of the two (2) operating scenarios:
 - 1) The VOC emissions from treating of solvent laden water in the Electric Vapor Resin Kettle shall be calculated by multiplying the monthly weight of solvent laden water processed in the Electro-Vapor Resin Kettle by the site specific emission factor of 0.88 pounds of VOC per ton of solvent laden wastewater processed.
 - 2) The VOC emissions from the production of polyester/alkyd resin in the Electric Vapor Resin Kettle shall be calculated by multiplying the monthly weight of resins produced in the Electro-Vapor Resin Kettle by the AIRs emission factor (SCC 3-01-018-38) of 4.8 pounds of VOC per tons of resin produced.
- e) The Permittee shall calculate the monthly VOC emissions from the Thinning Tanks. The VOC emissions from the thinning tanks shall be calculated by multiplying the monthly weight of solvent used in the thinning tank by the AIRs emission factor (SCC 3-01-018-38) of 6.7 pounds of VOC per tons of thinning solvent used.
- f) The Permittee shall calculate the monthly VOC emissions from the Steam Kettle, identified as emission unit SK. The VOC emissions from the Steam Kettle shall be calculated as follows for each of the two (2) operating scenarios:
 - 1) The VOC emissions from treating of solvent laden water in the Steam Kettle shall be calculated by multiplying the monthly weight of solvent laden water processed in the Steam Kettle by the site specific emission factor of 0.88 pounds of VOC per ton of solvent laden wastewater processed.
 - 2) The VOC emissions from warm blending of anodic and cathodic acrylic coatings in the steam kettle shall be calculated by multiplying the monthly weight of coatings blended in the Steam Kettle by the site specific emission factor of 4.28 pounds of VOC per ton of coatings blended.
- g) The Permittee shall calculate the monthly VOC emissions from the Totes Spray Paint Booth, identified as emission unit SB28, and the seven (7) quality assurance paint booths, identified as emission units QA1 through QA7. The monthly VOC emissions shall be calculated based on the monthly solvent, thinner and paint usage in these booths.
- h) The VOC emissions from Tank Cleaning Operations shall be calculated by multiplying the monthly weight of solvent used for tank cleaning by the site specific solvent loss factor of 0.004 pounds of VOC emitted per pound of solvent used for tank cleaning. The monthly weight of solvent used will be calculated as 10 pounds for every 1000 pounds of coating produced.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Parametric Monitoring

- (a) The Permittee shall monitor the condenser exhaust stack temperature whenever the EVRK, BRK and SK are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the exhaust gas temperature shall not exceed the boiling point temperature of the solvent with the lowest boiling point in the batch being cooked. The exhaust gas temperature shall be recorded on a continuous chart recorder. The Permittee shall record the temperature of the solvent with the lowest boiling point on the exhaust temperature chart for each batch. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the temperature exceeds the above mentioned limit for any one reading.
- (b) The Permittee shall make a visible observation through the sight glass on the EVRK and BRK kettles once every four hours of batch process time when producing resins to ensure that foaming is controlled. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the foaming is observed for any one observation.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (8) below.
 - (1) The monthly pounds of coatings formulated per coating category and the monthly VOC emissions from formulation per coating category.
 - (2) The monthly pounds of coating packaged per coating category and the monthly VOC emissions from packaging per coating category.
 - (3) The monthly tons of resin produced in the Brighton Resin Kettle (BRK), and the Electro-Vapor Resin Kettle (EVRK). The monthly VOC emissions from the Brighton Resin Kettle (BRK), and Electro-Vapor Resin Kettle (EVRK).
 - (4) The monthly weight of thinner used in the thinning tanks (TT) and the monthly VOC emissions from the thinning tanks (TT).
 - (5) The monthly weight of solvent laden water processed in the Steam Kettle (SK) and Electro-Vapor Resin Kettle (EVRK). The monthly VOC emissions from treatment of solvent laden water in the Steam Kettle (SK) and Electro-Vapor Resin Kettle (EVRK).
 - (6) The monthly weight of coatings blended in the Steam Kettle (SK) and the monthly VOC emissions from the blending of coatings in the Steam Kettle (SK).
 - (7) The monthly weight and VOC content of each coating material and solvent used in the Tote Spray Paint Booth (SB28) and Six Seven Quality Assurance Paint Booths (QA1 through QA7 6). For simplicity, all usage in the seven quality assurance paint booths will be considered VOC.
 - (8) The monthly weight of cleanup solvent used in the tank cleaning operation (TC)

and the monthly VOC emissions from tank cleaning (TC).

- (b) To document compliance with Condition D.2.6(a), the Permittee shall maintain chart records of the exhaust gas temperatures of the Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK) and Steam Kettle (SK) and the boiling point temperature of the solvent with the lowest boiling point for each batch produced shall be maintained in batch log. In addition to this, the Permittee shall keep records of each time the temperature exceeds the specified limit and the corrective actions taken to correct the problem.
- (c) To document compliance with Condition D.2.6(b), the Permittee shall maintain record of results of each sight glass observation. In addition to this the Permittee shall keep records of each time the foaming is observed and the corrective actions taken to correct the problem.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS

Insignificant Emitting Activity

- 1) Pilot Resin Kettle, maximum process capacity is 800 pounds per batch, minimum batch process time is 12 hours, emissions are controlled by a condenser. This emission unit is used for research and development. This emission unit was installed in prior to January 1, 1980.
- 2) Seven (7) Quality Assurance Paint Booths, over spray is controlled by a dry filter. These emission units are used to test coatings produced at the source. This emission unit was installed in prior to January 1, 1980.
- 3) One hundred and seventy (170) fixed roof, above ground storage tanks ranging in size from 180 to 9,608 gallons. These tanks are used to store solvents, resins, and other raw materials and intermediates. These emission units were installed in prior to January 1, 1980.
- 4) One Luwa Thin Film Evaporator, Model #LN0200, used to reclaim solvent from waste materials. This unit is operated under vacuum, typically 28 in. H.g., pulled at the condenser end of the unit. This emission unit was installed prior to January 1, 1988.
- 5) Tank Cleaning Operations involves rinsing and cleaning paint formulation equipment (mixing vats, dispersers, mills, etc.) with reclaimed organic solvents. The dirty reclaimed solvent is sent back to the Luwa Thin Film Evaporator for recovery of the solvents. Volatile Organic Compounds which evaporate during this process are emitted into the room air. This emission unit was installed in prior to 1960.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Emissions [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the Pilot Resin Kettle, and Seven (7) QA Paint Booths shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.2 Organic Solvent Regulation [326 IAC 8-6]

The following emissions units shall comply with the applicable requirements of conditions D.2.1 and D.2.6 of this permit; Luwa Thin Film Evaporator (SRU), Storage Tanks, Seven (7) Quality Assurance Paint Booths, Tank Cleaning Operations and the Pilot Resin Kettle.

D.3.3 Cold Cleaner Degreaser Operations and Control [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand or foot if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when the solvent which is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.

- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-7-6(1)]

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the Particulate Matter or Volatile Organic Compound limit specified in Conditions D.3.1 or D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Lilly Industries, Incorporated
Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
Part 70 Permit No.: T097-7789-00040

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
2700 South Belmont Ave.
Indianapolis Indiana 46221
Phone: 317-327-2234
Fax: 317-327-2274**

**PART 70 OPERATING PERMIT
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Lilly Industries, Incorporated
Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
Part 70 Permit No.: T097-7789-00040

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2	
9 1.	This is an emergency as defined in 326 IAC 2-7-1(12) C The Permittee must notify the ERMD and OAM, within four (4) business hours; and C The Permittee must submit notice in writing or by facsimile within two (2) days, and follow the other requirements of 326 IAC 2-7-16
9 2.	This is a deviation, reportable per 326 IAC 2-7-5(3)(c) C The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

**PART 70 OPERATING PERMIT
NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Lilly Industries, Incorporated
Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
Part 70 Permit No.: T097-7789-00040

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Report period

Beginning: _____

Ending: _____

Boiler Affected

Alternate Fuel

Days burning alternate fuel
From To

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: _____

Printed Name: _____

Title/Position: _____

Date: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE DATA SECTION
 and
 INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

Part 70 Quarterly Report

Source Name: Lilly Industries, Incorporated
 Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
 Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
 Part 70 Permit No.: T097-7789-00040
 Facility: Coating Formulation/Packaging (CF-1), Brighton Resin Kettle (BRK), Electro-Vapor Resin Kettle (EVRK), Steam Kettle (SK), Thinning Tanks (TT-1 through TT-4), Totes Spray Paint Booth (SB28), Seven Quality Assurance Paint Booths (QA1 through QA67) and Tank Cleaning Operations (TC).
 Parameter: VOC Emissions
 Limit: 77.7 tons of VOC for the first 12 month after permit issuance and 77.7 tons of VOC emissions per (12) twelve consecutive month period after.

MONTH: _____

This form consists of 2 pages

Page 1 of 2

Emissions Category	Emission Factor	Amount of Material Processed, Consumed, Formulated, or Packaged		Tons of VOC emissions		Twelve month rolling sum of VOC emissions
		This month	Previous 11 months	This month	Previous 11 months	
(1) Office Equipment Coatings formulated	0.0006 lbs VOC/lbs coating formulated					
(2) Clear Wood Finishes formulated	0.0002 lbs VOC/lbs coating formulated					
(3) Pigmented Wood Finishes formulated	0.0041 lbs VOC/lbs coating formulated					
(4) Electrodeposition Finishes formulated	0.0006 lbs VOC/lbs coating formulated					
(5) Coil Coating formulated	0.0009 lbs VOC/lbs coating formulated					
(6) General Metal Finishes formulated	0.0026 lbs VOC/lbs coating formulated					
(7) Pigmented Automotive Coatings	0.0007 lbs VOC/lbs coating formulated					
(8) Office Equipment Coatings Packaged	0.00007 lbs VOC/lbs coating packaged					

Complete this form for each month within the reporting period.

9 Deviation/s occurred in this month.
Deviation has been reported on:

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

Part 70 Semi-Annual Report

Source Name: Lilly Industries, Incorporated
Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
Part 70 Permit No.: T097-7789-00040
Emission units: Orr & Stembower Boiler (OSB)
Parameter: % Sulfur in Distillate Oil
Limit: 0.5% Sulfur

Months: _____ **to** _____ **Year:** _____

Dates fuel oil combusted	Sulfur content of fuel oil combusted was determined by supplier certification or sampling and analysis	Percent sulfur by weight of fuel oil combusted

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____

Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

**PART 70 OPERATING PERMIT
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Lilly Industries, Incorporated
Source Address: 546 West Abbott Street, Indianapolis, Indiana 46225
Mailing Address: 546 W. Abbott Street, Indianapolis Indiana 46225
Part 70 Permit No.: T097-7789-00040

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviations

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Attachment A

The following state rule have been adopted by reference by the Indianapolis Air Pollutant Control Board and are enforceable by Indianapolis Environmental Resources Management Division (ERMD) using local enforcement procedures.

- (1) 326 IAC 1-1-1 through 1-1-3 and 1-1-5;
- (2) 326 IAC 1-2-1 through 1-2-91 (In addition, the IAPCB has adopted several local definitions);
- (3) 326 IAC 1-3-1 through 1-3-4;
- (4) 326 IAC 1-4-1 (The IAPCB added to the adoption by reference a citation to 61 FR 58482 (November 15, 1996));
- (5) 326 IAC 1-5-1 through 1-5-5;
- (6) 326 IAC 1-6-1 through 1-6-6;
- (7) 326 IAC 1-7-1 through 1-7-5;
- (8) 326 IAC 2-3-1 through 2-3-5;
- (9) 326 IAC 2-4-1 through 2-4-6;
- (10) 326 IAC 2-6-1 through 2-6-4;
- (11) 326 IAC 2-7-1 through 2-7-18, 2-7-20 through 2-7-25;
- (12) 326 IAC 2-8-1 through 2-8-15, 2-8-17 through 2-8-10;
- (13) 326 IAC 2-9-1 through 2-9-14;
- (14) 326 IAC 2-10-1 through 2-10-5 (The IAPCB adoption adds the language "state or local" immediately after the word "federal" in 326 IAC 2-10-1);
- (15) 326 IAC 2-11-1, 2-11-3 and 2-11-4 (The IAPCB adoption adds the language "federal, state or local" immediately after the word "by" in 326 IAC 2-11-1);
- (16) 326 IAC 3-1.1-1 through 3-1.1-5;
- (17) 326 IAC 3-2.1-1 through 3-2.1-5;
- (18) 326 IAC 3-3-1 through 3-3-5;
- (19) 326 IAC 4-2-1 through 4-2-2;
- (20) 326 IAC 5-1-1 (a), (b) and c) (5), 5-1-2 (1), (2)(A), (2)c) (4), 5-1-3 through 5-1-5, 5-1-7;
- (21) 326 IAC 7-1.1-1 and 7-1.1-2;
- (22) 326 IAC 7-2-1;
- (23) 326 IAC 7-3-1 and 7-3-2;
- (24) 326 IAC 7-4-2(28) through (31) (Instead of adopting by reference 7-4-2(1) through (27), the IAPCB regulation substitutes the same requirements listed in a format in which the companies are alphabetized and emission points known to no longer exist have been deleted);
- (25) 326 IAC 8-1-0.5 except (b), 8-1-1 through 8-1-2, 8-1-3 except c), (g) and (i), 8-1-5 through 8-1-12;
- (26) 326 IAC 8-2-1 through 8-2-12 (The IAPCB adoption by reference of 8-2- 5 adds additional language specific to Zimmer Paper Products, Incorporated as subpart c);
- (27) 326 IAC 8-3-1 through 8-3-7;
- (28) 326 IAC 8-4-1 through 8-4-5, 8-4-6 (a)(6), (a)(8) and (a)(14) and 8-4-6(b)(1), (b)(3) and 8-4-6c) (In place of 8-4-6(b)(2), which was not adopted, the IAPCB adopted language requiring a pressure relief valve set to release at no less than four and eight-tenths (4.8) Kilo Pascals (seven-tenths (0.7) pounds per square inch)), 8-4-7 except (e), 8-4-8 and 8-4-9;
- (29) 326 IAC 8-5-1 through 8-5-4, 8-5-5 except (a)(3) and (d)(3);
- (30) 326 IAC 8-6-1 and 8-6-2;
- (31) 326 IAC 9-1-1 and 9-1-2;
- (32) 326 IAC 11-1-1 through 11-1-2;
- (33) 326 IAC 11-2-1 through 11-2-3;
- (34) 326 IAC 11-3-1 through 11-3-6;

- (35) 326 IAC 14-1-1 through 14-1-4;

Attachment A continued

- (36) 326 IAC 14-2-1 except 40 CFR 61.145;
(37) 326 IAC 14-3-1;
(38) 326 IAC 14-4-1;
(39) 326 IAC 14-5-1;
(40) 326 IAC 14-6-1;
(41) 326 IAC 14-7-1;
(42) 326 IAC 14-8-1 through 14-8-5;
(43) 326 IAC 15-1-1, 15-1-2(a)(1), (a)(2) and (a)(8), 15-1-3 and 15-1-4;
(44) 326 IAC 20-1-1 through 20-1-4 (In 20-1-3(b)(2) the adoption states that "permitting authority" means the commissioner of IDEM or the administrator of ERMD, whichever is applicable);
(45) 326 IAC 20-2-1;
(46) 326 IAC 20-3-1;
(47) 326 IAC 20-4-1;
(48) 326 IAC 20-5-1;
(49) 326 IAC 20-6-1;
(50) 326 IAC 20-7-1;
(51) 326 IAC 20-8-1;
(52) 326 IAC 20-9-1;
(53) 326 IAC 20-14-1;
(54) 326 IAC 20-15-1;
(55) 326 IAC 20-16-1;
(56) 326 IAC 20-17-1;
(57) 326 IAC 20-18-1;
(58) 326 IAC 20-19-1;
(59) 326 IAC 20-20-1;
(60) 326 IAC 20-21-1;
(61) 326 IAC 21-1-1 (The adoption states that "or the administrator of ERMD" is added in (b));
(62) 326 IAC 22-1-1 (The adoption states that "or the administrator of ERMD" is added in (b)).

**Indiana Department of Environmental Management
Office of Air Management
and
Indianapolis Environmental Resources Management Division
Air Quality Management Section**

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	Lilly Industries, Incorporated
Source Location:	733 S. West Street, Indianapolis, Indiana 46225
County:	Marion
SIC Code:	2851
Operation Permit No.:	T097-7789-00040
Permit Reviewer:	Mr. Patrick Coughlin

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Lilly Industries, Incorporated relating to the operation of coating manufacturing process.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (1) Orr & Sembower boiler, identified as emission unit OSB, is located in building 30. This boiler has a maximum heat input capacity 14.5 million Btu per hour and is fired with natural gas as the primary fuel and distillate oil as a backup fuel. The emissions from this facility are exhausted out one stack identified as stack ID OSB-S. This facility was constructed in 1960.
- (2) York Shipley boiler, identified as emission unit YSB, is located in building 30. This boiler has a maximum heat input capacity of 29 million Btu per hour and is fired with natural gas as the primary fuel and distillate oil as a backup fuel. The emissions from this facility are exhausted out one stack identified as stack YSB-S. This facility was constructed in 1982.
- (3) Coating Formulation and Packaging, identified as emissions unit CF1, is where paints, lacquer and enamel are formulated and subsequently packaged in tanker trucks, totes, drums and cans. The Coating Formulation area consists of the following equipment; 83 Mix tanks, 1 Variable Speed Air/Hydraulic Lift Dispenser, 1 Single Speed Air/Hydraulic Lift Dispenser (UFD), 8 Paint Mills, and 8 Portable Kettles/tubs. Particulate emissions generated from the handling of dry ingredients in the formulation area are vented to one of thirteen portable baghouses or two stationary baghouses. The portable baghouses exhaust out one of thirteen stacks identified as DC 3 through DC 15. The stationary baghouses exhaust to one of two stacks identified as DC 1 and DC 2. The Coating Packaging area consists of five stationary filling stations and ten portable filling stations. The maximum loading rate for each loading station ranges from 10 to 12 gallons per minute. The Coating Formulation and Packaging processes were installation before

1980.

- (4) Brighton Resin Kettles, identified as emission unit BRK, is located in building 22. The resin kettle is used to produce Alkyd resins in a batch operation. This kettle is fired with natural gas and has a maximum rated heat input capacity of 2.7 million Btu per hour. The process emissions from the kettle are vented to a condenser followed by a scrubber. Solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. Process emissions from the kettle exhausts out one stack, identified as stack BRK-S. Combustion emissions from the 2.7 million Btu per hour burner are exhausted out a separate stack, identified as stack #7. This facility was installed prior to 1960 1965.
- (5) Blaw Knox Electro-Vapor Resin Kettles, identified as emission unit EVRK, is located in building 22. The Electro-Vapor Resin Kettle can be operated as kettle resin used to produce Alkyd resins in a batch operation or as a solvent recovery device used to recover solvents from solvent laden water generated from resin production. The emissions from this facility are vented to a condenser followed by a scrubber. During resin production solvents collected by the condenser are routed back to the kettle at a controlled rate in order to control the reaction temperature within the kettle. This facility was installed in prior to 1960.
- (6) Industrial Process Steam Kettle, identified as emission unit SK, is located in building 22. The Steam Kettle can be operated as a solvent-recovery device used to recover solvents from solvent-laden water generated for resin production or used for the warm blending of anodic and cathodic acrylic coatings. The emissions from this facility are vented to a shell-and-tube condenser, which exhausts out one stack, identified as stack SK-S. This facility was installed prior to 1960.
- (7) Thinning Tank, identified as emission unit TT. The intermediate product from the resin kettles is dropped into the thinning tank that contains solvents used to quench the reaction. Emissions from this unit are exhausted out one stack identified as stack vent TT-S. This facility was installed prior to 1980.
- (8) Tote paint spray booth, identified as emission unit SB28, is located in building 28. This paint booth is used to coat metal totes. The coating application method is air atomization. Particulate emissions are controlled by a dry filter. Emissions from this unit are exhausted out one stack identified as stack vent SB28-S. This facility was constructed in 1977.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Emission Units and Pollution Control Equipment Under Enhanced New Source Review (ENSR)

There are no new facilities to be reviewed under the ENSR process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

- (2) Combustion source flame safety purging on startup.
- (3) The following VOC and HAP storage containers:
 - A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids
- (4) The following degreasing operations that does not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
 - a) Cold Cleaning Operations which consists of 30 portable cold cleaning units of various sizes used to clean production related tools and small machine parts. These cold cleaning units are charged with reclaim solvent. VOC emissions from these cold cleaning units are emitted to the building. Dirty solvent are sent back to the solvent recovery unit and reused.
- (5) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (6) Closed loop heating and cooling systems.
- (7) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (8) Paved and unpaved roads and parking lots with public access.
- (9) Asbestos abatement projects regulated by 326 IAC 14-10.
- (10) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (11) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (12) Stationary fire pumps.
- (13) Filter or coalescer media changeout.
- (14) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (15) Other insignificant emitting activities with potential emissions less than the emissions level specified in 326 IAC 2-7-1(21)(A) through (C)
 - a) One (1) Tote washing machine which uses solvent to clean empty coating containers. This system is enclosed, consequently the VOC emissions from this unit were considered negligible;
 - b) One (1) tank washing machine which uses reclaimed solvents to clean coating mix tanks. This system is enclosed, consequently the VOC emissions from this

unit were considered negligible;

- c) Pilot Resin Kettle, maximum process capacity is 800 pounds per batch, minimum batch process time is 12 hours, emissions are controlled by a condenser. This emission unit is used for research and development. This emission unit was installed in prior to January 1, 1980.
- d) Seven (7) Quality Assurance Paint Booths, over spray is controlled by a dry filter. These emission units are used to test coatings produced at the source. This emission unit was installed in prior to January 1, 1980.
- e) One hundred and seventy (170) fixed roof, above ground storage tanks ranging in size from 180 to 9,608 gallons. These tanks are used to store solvents, resins, and other raw materials and intermediates. These emission units were installed in prior to January 1, 1980.
- f) This unit is operated under vacuum, typically 28 in. W.G., pulled at the condenser end of the unit. This emission unit was installed prior to January 1, 1980.
- g) Tank Cleaning Operations involves rinsing and cleaning paint formulation equipment (mixing vats, dispersers, mills, etc.) with reclaimed organic solvents. The dirty reclaimed solvent is sent back to the Luwa Thin Film Evaporator for recovery of the solvents. Volatile Organic Compounds which evaporate during this process are emitted into the room air.

Existing Approvals

The source has been operating under the following approvals:

- (1) Operating Permit 0040, was issued on March 15, 1994.

Enforcement Issue

There are no Enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 12, 1996. Additional information was received on February 2, 1998.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 13 in Appendix A.) See Appendix B of this Document for detailed information as to how the coating formulation and packaging emission factors were generated.

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as “emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility.”

Pollutant	Potential Emissions (tons/year)
PM	<i>Less than 100</i>
PM-10	<i>Less than 100</i>
SO ₂	<i>Less than 100</i>
VOC	<i>Greater than 250</i>
CO	<i>Less than 100</i>
NO _x	<i>Less than 100</i>

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Individual HAP	Greater than 10
Combination of HAPs	Greater than 25

- (a) The potential emissions (as defined in the Indiana Rule) of VOCs are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential emissions (as defined in Indiana Rule) of any single HAP is equal to or greater than ten (10) tons per year and the potential emissions (as defined in Indiana Rule) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects 1996 emission data.

Pollutant	Actual Emissions (tons/year)
PM	<i>0.41</i>
PM-10	<i>0.41</i>
SO ₂	<i>0.01</i>
VOC	<i>66.89</i>
CO	<i>0.79</i>
NO _x	<i>3.25</i>
Xylene	<i>12.187</i>
Toluene	<i>2.767</i>
Ethyl Benzene	<i>1.947</i>
Isophorone	<i>1.405</i>
MIBK	<i>.971</i>
MEK	<i>0.784</i>
Methanol	<i>0.646</i>
Napthalene	<i>0.615</i>

Ethylene Glycol	0.193
Formaldehyde	0.109
Cumene	0.073
Styrene Monomer	0.055
Triethylamine	0.025
Methyl Methacrylate	0.005
Butyl Cellosolve/EB	5.348
Propyl Cellosolve/EP	0.373
Glycol Ether EH	0.335
Butyl Carbitol/DE	0.052

Limited Potential to Emit

The table below summarizes the total limited potential to emit of the significant emission units.

Process/ facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Orr & Stembower Boiler	(a)	NL	(b)	(c)	NL	NL	NL
York Shipley Boiler	(a)	NL	(b)	NL	NL	NL	NL
<u>Category #1</u> Coating Formulation Coating Packaging Brighton Resin Kettle Electro-Vapor Resin Kettle Thinning Tank Steam Kettle Tank Cleaning Seven (7) QA Paint Booths Totes Paint Booth <u>Category #2</u> Pilot Resin Kettle Fugitive Equipment Leaks Storage Tanks Solvent Recovery Unit Orr & Stembower Boiler	(d) (d) (d) (d) (d) (d) (d) (d)	NL	NL	The total PTE VOC from these units is limited to 99 tons The VOC emissions under category 1 are limited to 77.7 tons. The source shall track the VOC emissions from these units on a monthly basis. The VOC emission listed in Category 2 are fixed at 21.3 tons based on Potential emissions	NL	NL	Not Limited at this time
Total Potential to Emit	<100	<100	<100	<100	<100	<100	>10 of a single HAP and > 25 tons of any combination of HAPs

- (a) Potential to Emit PM for the OSB and YSB is limited to 0.57 and 0.48 lbs/MMBtu respectively pursuant to 326 IAC 6-2-2
- (b) Potential to Emit SO₂ is limited to 0.5 lbs/MMBtu pursuant to 326 IAC 7-2.1-2.
- (c) Potential to Emit VOC are included in the emissions limitation taken to avoid applicability of 326 IAC 8-6.
- (d) Potential to Emit PM is limited by the Process Weight Rate Regulation 326 IAC 6-3.
- (NL) No applicable limit.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12) applicable to this source.
- 1) New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units 40 CFR Part 60.40c (Subpart Dc) is not applicable to the Orr & Stembower and York Shipley Boilers since these boilers were constructed prior to the June 9, 1989.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to this source at this time. However EPA is scheduled to promulgate NESHAP regulations for Paint and Coating Manufacturing by November 15, 2000.
- 1) National Emission Standards for Halogenated Solvent Cleaning 40 CFR Part 63.460 (Subpart T) does not apply since these cold cleaning units do not contain any combination of the halogenated HAP solvents, in a total concentration greater than 5 percent by weight. A profile of the reclaim solvent indicates that none of the halogenated solvent are present in the reclaim solvent used in parts cleaning operations.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plan; Submission)

This source is not required to have an emergency reduction plan on file with ERMD, since the potential to emit any individual criteria air pollutant is less than 100 tons per year.

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is included on the list of 28 source categories as a Chemical Process Plant since the first two digits of the Source Industry Code (SIC) begins with 28. The Potential emissions of all regulated air pollutant, except for VOC, are less than the major PSD source levels. As a result of limitations taken in this permit the Potential to Emit VOC is less than 100 tons per year. Based on EPA's policy on major VOC sources of "once in always in" this source is classified as a Major PSD source even though the Potential to Emit source wide for all regulated pollutants are less than the PSD major source thresholds.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source.

The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This rule is generally applicable to all source of fugitive dust. Pursuant to 326 IAC 6-4-2 (4) the Permittee shall not allow visible fugitive dust to cross the boundary or property line of the source, unless exempted under 326 IAC 6-4-6. A violation of this requirement may be refuted by factual data expressed by the methods set forth in 326 IAC 6-4-2(1)(2)(3) and 326 IAC 6-4-5.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitation)

This regulation applies to all source located in nonattainment areas for PM and which have potential fugitive particulate matter emissions greater than twenty five (25) tons per year. Lilly Industrial Coatings Inc. is located in a nonattainment area for PM, but does not have potential fugitive dust emissions greater than twenty five (25) tons per year. Therefore 326 IAC 6-5 does not apply.

State Rule Applicability - Individual Facilities

326 IAC 1-6-3 (Preventive Maintenance Plan)

According to a IDEM, OAM guidance document Preventative Maintenance Plans (PMP) are required for all emitting units which emit PM, SO₂ or VOC with existing applicable requirements and:

- 2) a NSPS or NESHAP applies; or
- 3) the unit has a control device and allowable emissions exceed 10 pounds per hour; or
- 4) the unit does not have a control and actual emissions exceed 25 tons per year; or
- 5) the unit would have been subject to an applicable requirement if there was not a condition limiting the PTE.

Based on ERMD's review PMPs are required for the following emission units; SK, BRK, and EVRK, since the units would be subject to an applicable requirement if there was not a condition limiting the PTE.

326 IAC 6-1 (Nonattainment Area Provisions)

Since this source does not have the Potential to Emit Particulate Matter (PM) greater than 100 tons per year and does not have actual emissions of PM greater than 10 tons per year the requirements of 326 IAC 6-1-2 do not apply.

326 IAC 6-2-2 (Indirect Heating)

326 IAC 6-2-2 applies to the Orr & Sembower boiler, identified as emission unit OSB and York Shipley boiler, identified as emission unit YSB, since these facilities were in existence prior to

September 21, 1983 and are located in Marion County. Pursuant to 326 IAC 6-2-2 the Particulate emissions from these emission units are limited based on the following equation:

$$Pt = \frac{0.87}{Q^{0.16}}$$

Where Pt = Pounds of particulate matter emitted per million Btu (lbs/MMBtu) heat input.
Q = Total source maximum operating capacity in million Btu per hour (lbs/MMBtu) heat input.

For emissions unit OSB Q equals 14.5 MMBtu/hr and Pt equals 0.57 pounds per million Btu. For emissions unit YSB Q equals 43.5 and Pt equals 0.48 pounds per million Btu. Based on AP-42 emissions factors for distillate oil and natural gas these emission units are in compliance with 326 IAC 6-2-2. Based on AP-42 emission factor the maximum PM emission rate for the YSB and OSB is 0.014 pounds per million Btu.

326 IAC 6-3 (Process Weight Rate)

326 IAC 6-3 is applicable to all particulate emitting activities which are not otherwise regulated under Article 6. The particulate emissions for emission units CF-1 (DC1 through 15), Pilot Resin Kettle, BRK, EVRK, Six (6) QA Paint Booths and SB28 are limited by the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

For CF-1 (DC1 through DC15) P is equal to 1.5 tons per hour and E is equal to 5.38 pounds per hour. These emissions units will be in compliance with 326 IAC 6-3 as long as the baghouse is maintained and operated in a manner consistent with good air pollution control practices.

For the SB28 and Six (6) QA Paint Booths it is not possible to identify P therefore E, the rate of emissions in pounds per hour will not be calculated. This facility shall be considered to be in compliance as long as the dry filters are maintained and operated in a manner consistent with good air pollution control practices.

For the Pilot Resin Kettle, EVRK and BRK it is not possible to identify P therefore E, the rate of emissions in pounds per hour will not be calculated. These facilities shall be considered to be in compliance as long as the scrubbers are maintained and operated in a manner consistent with good air pollution control practices.

326 IAC 7-1.1-2 (Sulfur Dioxide Emissions Limitations)

326 IAC 7-1.1-2 applies to the Orr & Sembower boiler, identified as emission unit OSB and York Shipley boiler, identified as emission unit YSB, since these facilities each have potential SO₂ emissions greater than 25 tons per year. Pursuant to 326 IAC 7-1.1-2 the SO₂ emissions are limited to 0.5 pounds per million Btu when combusting distillate oil. Based on the annual emissions statements for the previous two years (1996 and 1995) these boilers have not combusted any fuel oil, consequently they are in compliance with the 326 IAC 7-1.1-2.

326 IAC 8-1-6 (General New Facilities VOC Reduction Requirements)

This regulation applies to all facilities constructed after January 1, 1980 which have Potential

VOC emissions greater than 25 tons per year and which are not limited by any other provisions under Article 8. This regulation does not apply to any of the facilities located at Lilly Industries Incorporated due to the date of installation and or the potential VOC emissions.

326 IAC 8-2-9 (Miscellaneous Metal Parts)

The coating limitations listing under 326 IAC 8-2-9 do not apply to the totes paint booths (SB28) or Quality Assurance Paint Booths (QA 1-6) located at Lilly Industries Incorporated since the first two digits of Lilly's Source Industry Code (SIC) number is 28.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operations and Control)

326 IAC 8-3-5 applies to the 30 cold solvent cleaning units since the source is located in Marion County and are existing as of July 1, 1990.

326 IAC 8-6 (Organic Solvents Emissions Limitation)

326 IAC 8-6 applies to sources in existence prior to January 1, 1980 for which there are no other applicable emissions limitations under 326 IAC 8. With the exception of the York Shipley boiler which was installed in 1982 and the Cold Solvent Cleaning Units which are regulated under 326 IAC 8-3-5, all other emission units combined are limited to 99 tons per year such that the Organic Solvent Regulation 326 IAC 8-6 shall not apply.

In order to make this limit enforceable ERMD is limiting the actual emissions from the emission units identified in Table-1 to 77.67 tons per twelve (12) consecutive month period, rolled monthly. This emissions limitation is based on subtracting 21.43 tons, the combined potential emissions for the units in Table-2, from the source wide limit of 99 tons per year.

TABLE -1 Emission Units for which monthly emissions will be tracked	
Emission Units	Limited PTE
Coating Formulation and Packaging (CF-1)	Combined VOC emissions limitation of 77.6 tons per 12 consecutive month period.
Brighton Resin Kettles (BRK)	
Blaw Knox Electro-Vapor Resin Kettle (EVRK)	
Thinning Tanks	
Steam Kettle (SK)	
Quality Assurance Paint Booths 1-7 (QA1 through QA7)	
Tote Spray Paint Booth (SB-28)	
Tank Cleaning (TC)	

TABLE -2 Emission units for which the monthly VOC emissions will not be tracked	
Emission Units	Potential Emissions
Equipment Leaks	18.6
Pilot Resin Kettle	0.8
Storage Tanks	0.6
Solvent Recovery Unit	1.1
OSB Boiler	0.32

Total Potential Emissions	21.43
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Compliance with the 77.67 ton per twelve consecutive month emissions limitation taken to avoid applicability of 326 IAC 8-6 shall be based on the following:

- 1) The VOC emissions from coating formulation shall be tracked using site specific emissions factor for six coating categories and the monthly production rate for each coating category. These emission factors have been developed for the following six (6) coating categories; Office Equipment Coatings, Clear Wood Finishes, Pigmented Wood Finishes, Electrostatic Finishes, Coil Coating, and General Metal Finishes. The emissions factor for each coating category were developed using the corresponding formulation tickets for a representative coating within that category and the EPA CTG recommended Batch Process method. The emission factor used for each coating category is representative of that coating category since the coatings within the category are produced in essentially the same manner. The emission factors for coating formulation are listed in the Table 3 below:

TABLE - 3, Emission Factors For Coating Formulation	
Coating Category	VOC Emission Factor (lbs of VOC/lbs of Coating)
Office Equipment Coatings	0.0006
Clear Wood Finish	0.0001
Pigmented Wood Finish	0.0041
Electrostatic Finish	0.0006
Coil Coating	0.0009
General Metal Finishes	0.0026

- 2) The VOC emissions from coating packaging shall be tracked using site specific emissions factor for six coating categories and the monthly quantity of coatings packaged. These emission factors have been developed for the following six (6) coating categories; Office Equipment Coatings, Clear Wood Finishes, Pigmented Wood Finishes, Electrostatic Finishes, Coil Coating, and General Metal Finishes. The emissions factor for each coating category were developed using the corresponding formulation tickets and EPA recommended vapor displacement method. The emission factor used for each coating category are representative of that coating category since the coatings within the category have essentially the same VOC constituents and VOC content. The emission factors for coating formulation are listed in the Table 4 below:

TABLE - 4, Emission Factors For Coating Packaging	
Coating Category	VOC Emission Factor (lbs of VOC/lbs of Coating)
Office Equipment Coatings	0.00007
Clear Wood Finish	0.00010
Pigmented Wood Finish	0.00007

TABLE - 4, Emission Factors For Coating Packaging	
Coating Category	VOC Emission Factor (lbs of VOC/lbs of Coating)
Electrostatic Finish	0.000005
Coil Coating	0.00001
General Metal Finishes	0.00002

- 3) The VOC emissions from the Brighton Resin Kettle, identified as emission units BRK , shall be tracked using AIRs emission factor for polyester/alkyd resin production SCC 3-01-018-38 and the monthly resin production. The AIRs emission factor is 4.8 pounds of VOC per tons of polyester/alkyd resin produced.
- 4) The VOC emissions from the Electric Vapor Resin Kettle, identified as emission unit EVRK, shall be tracked as follows for each of the two operating scenarios:
 - a) The VOC emissions from treating of solvent laden water in the Electric Vapor Resin Kettle shall be based on a site specific emission factor of 0.88 pounds of VOC per ton of solvent laden wastewater processed
 - b) The VOC emissions from the production of polyester/alkyd resin shall be based on AIRs emission factor for polyester/alkyd resin production SCC 3-01-018-38 and the monthly resin production. The AIRs emission factor is 4.8 pounds of VOC per tons of polyester/alkyd resin produced.
- 5) The VOC emissions from the Thinning Tank, identified as emission unit TT, shall be tracked on a monthly basis using AIRs emission factor for polyester/alkyd resin thinning tank SCC 3-01-018-39 and the monthly thinner solvent usage. The AIRs emission factor is 6.7 pounds of VOC per tons of thinning solvent used.
- 6) The VOC emissions from the Steam Kettle, identified as emission unit SK, shall be tracked as follows for each of the two operating scenarios:
 - a) The VOC emissions from treating of solvent laden water in the steam kettle shall be based on a site specific emission factor of 0.88 pounds of VOC per ton of solvent laden wastewater processed.
 - b) The VOC emissions from warm blending of anodic and cathodic acrylic coatings in the steam kettle shall be based on site specific emission factor of 4.28 pounds of VOC per ton of coatings blended in the steam kettle.
- 7) The VOC emissions from the totes spray paint booth, identified as emission unit SB28, and the six (6) quality assurance paint booths shall be tracked on a monthly basis based on monthly solvent, thinner and paint usage.
- 8) The VOC emissions from Tank Cleaning shall be based on a site specific solvent loss factor of 0.004 pounds of VOC emitted per pound of solvent used for tank cleaning. This emission factor is based on highest VOC loss factor from coating formulation.

All site specific emission factors were developed as part of this Part 70 permit and have not been used in any previous permit approvals issued to the source. See Appendix A for more

information as to how the emission factors for warm blending of anodic and cathodic acrylic coatings, and treating of solvent laden water were developed. See Appendix B for more information as to how the emission factors for Coating Formulation, and Coating Packaging were developed.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in permit Section D are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in permit Section D. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

Resin Kettles EVRK, BRK and Steam Kettle SK have compliance monitoring requirements since these units are controlled and have taken a restriction to avoid the Organic Solvent Regulation. The compliance monitoring requirements for these facilities are as follows:

- a) The Permittee shall monitor the exhaust stack temperature whenever the EVRK, BRK and SK are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the exhaust gas temperature shall not exceed the temperature of the solvent with the lowest boiling point in the batch being cooked. The exhaust gas temperature shall be recorded on a continuous strip chart recorder. The Permittee shall record the temperature of the solvent with the lowest boiling point on the exhaust temperature strip chart for each batch. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the temperature is outside of the above mentioned limit for any one reading.
- b) The Permittee shall make a visible observation through the sight glass on the EVRK and BRK kettles once every four hours of batch process time when producing resins to ensure that foaming is controlled. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the foaming is observed for any one observation.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act.
- (b) See attached calculations for detailed air toxic calculations. (page 13 in Appendix A)

Conclusion

The operation of this Coating Manufacturing Operation shall be subject to the conditions of the attached proposed Part 70 Permit No. T097-7789-00040.

Appendix A

Emissions Calculations

Appendix B
Coating Formulation and Packaging
Emission Factors

Appendix A - Emission Calculations

Page 1 of 13

Emission Unit	CF-1
Emission Unit Description	Coating Formulation and Packaging
Maximum Process Capacity	
Coating Production	59600 tons/yr
Pigment Usage	11400 tons/yr
Date Constructed	Prior to 1980
Stacks	DC-1 through DC-15
Control Device	Two (2) Stationary Baghouses identified as CD-1 and 2 Thirteen (13) Protatable Baghouses identified as CD-3 through CD-15

Lilly Industries formulates industrial coatings from constituent resins, pigments, additives and solvents (including water) VOC emissions are generated in the formulation process due to volatilization of organic liquids and subsequent displacement of organic vapors to the atmosphere. Each coating manufactured and intermediate product manufactured at this plant are classified into one of six product groups. Lilly industrial coatings has developed the following emission factors from each of product groups using the methodology identified in Appendix B.

Lilly Industries packages coatings which contain organic solvents. Coatings are packaged in totes, drums, tanker trucks, cans and so on. VOC emissions are generated during product loading due to the volatilization of organic liquids and subsequent displacement of organic vapor from the container vapor space to the atmosphere. Lilly Industries has developed emissions factors for loading of six representative product groups using the methodology identified in Appendix B.

Potential Emissions

VOC Emission

Product Group	Coating Formulation Emissions Factors (lb VOC/lbs Coating)	Coating Packaging Emissions Factors (lb VOC/lbs Coating)	Factor for Formul/Packaging (lbs VOC/lb Coating)
Office Equipment Coating	0.0006	0.00007	0.00067
Clear Finish	0.0002	0.0002	0.0004
Pigmented Wood Finishes	0.0041	0.00007	0.00417
Electrodeposition Finishes	0.0006	0.000005	0.000605
Coil Coating	0.0009	0.00001	0.00091
General Metal Finishes	0.0026	0.00002	0.00262
Pigmented Automotive Coatings	0.0007	0.0002	0.0009

Highest Emission Factor	0.00417 lbs VOC/lbs product
Maximum Coating Production	119200000 lbs of product produced
Potential VOC Emissions	248.532 tons/yr

PM Emissions

Site Specific Emission Factor	5.14 lbs/ton of Pigment
Maximum Pigment Usage	11,400 tons/yr
Potential PM Emissions	29.30 tons/yr

Potential to Emit

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)
PM	326 IAC 6-3	5.38 lbs/hr

The Allowable PM emissions rate pursuant to 326 IAC 6-3 is calculated as follows:

$$4.1 \times [1.5 \text{ tons pigment /hr}]^{0.67} = 5.38 \text{ lbs/hr}$$

Appendix A - Emission Calculations

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Emission Unit	BRK
Emission Unit Description	Brighton Resin Kettle
Maximum Resin Production	62300 tons/yr
Stack ID	SV-3
Primary Control Device	Condenser
Secondary Control Device	Scrubber
Fuel	Natural Gas
Heating Input Capacity	0.027 MMcf/hr
Burner Stack ID	SV-7
Control Device	None
Date Constructed	Prior to 1/1/80

The plant principally produces polyester/alkid type resin which are used to make coatings at the Indianapolis plant and other Lilly plant Bulk liquid materials are metered into the resin reactor, while solid materials and small amounts of liquid materials are charged from the roof hatch. Emissions emitted during the reaction process are vented to a condenser. Once the polymerization reaction has progressed to the desired end point the resin kettle contents is sent to the thinning tank that contains solvents that quench the reaction. Particulate emission generated during the addition of raw material is controlled by a scrubber which exhausts out a separate stack. Combustion emissions are exhausted out a separate stack.

Potential Emissions

Process Emissions

Pollutant	VOC	PM
Source of emission factor	SCC 3-01-018-38	Not Listed
Emission Factor (lbs/ton)	4.8	(1)
Potential Emissions (tons/yr)	149.52	

Combustion Emissions

Pollutant	PM	PM-10	SO ₂	NO _x	VOC	CO
Source of emission factor	AP-42 Section 1.4	AP-42 Section 1.4	AP-42 Section 1.4	AP-42 Section 1.4	AP-42 Section 1.4	AP-42 Section 1.4
Emission Factor (lbs/MMcf)	12	12	0.6	100	5.3	21
Potential Emissions (tons/yr)	0.32	0.32	0.02	2.70	0.14	0.57

(1) Note the addition of phthalic anhydride to other ingredients that are above the sublimation temperature of phthalic anhydride causes temporary emissions. These emissions subside as the solids is completely dissolved.

Potential to Emit

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)
PM (1)	326 IAC 6-3	E = 4.1x (P) ^{0.67}

(1) The throughput varies therefore only the equation is listed.

Appendix A - Emission Calculations

Page 3 of 13

Emission Unit	EVRK	
Emission Unit Description	Electro-Vapor Resin Kettle	
Operating Senario #1		
Resin Production	62300	tons/yr
Operating Senario #2		
Solvent Laden Water	4548	tons/yr (assumes 0.073 tons of water laden solvent are produced per ton of resin produced)
Stack ID	SV-4	
Primary Control Device	Condenser	
Secondary Control Device	Scrubber	
Date Constructed	Prior to 1/1/80	

The Electro-Vapor Kettle has two distinct uses. This Kettle is used to recover solvent for solvent laden water generated for the resin kettles and is also used to produce resins. The potential emissions for each operating senario are calculated below:

Potential Emissions

Process Emissions Operating Senario #1

Pollutant	VOC	PM
Source of emission factor	SCC 3-01-018-38	Not Listed
Emission Factor (lbs/ton)	4.8	(1)
Potential Emissions (tons/yr)	149.52	

Process Emissions Operating Senario #2

Pollutant	VOC
Source of emission factor	(2)
Emission Factor (lbs/ton)	0.88
Potential Emissions (tons/yr)	2.00

(1) Note the addition of phthalic anhydride to other ingredients that are above the sublimation temperature of phthalic anhydride causes temporary emissions. These emissions subside as the solids is completely dissolved.

(2) The Electro-Vapor Kettle is used to recover solvents from solvent laden water generated from the resin kettles condensers. The VOC emissions factor for the Electro-Vapor Kettle when used as a solvent recovery unit has been developed based on a material balance sheets produced by Lilly Industries.

Potential to Emit

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)
PM (1)	326 IAC 6-3	$E = 4.1x (P)^{0.67}$

(1) The throughput varies therefore only the equation is listed.

Appendix A - Emission Calculations

Emission Unit	Four (4) TT-1 through TT-4
Emission Unit Description	Thinning Tanks
Maximum Solvent Usage	21,805.00 tons/yr
Stack ID	TT-1 through TT-4
Control Device	None
Date Constructed	Prior to 1/1/80

Potential Emissions

-	VOC
Pollutant	
Source of emission factor	SCC 3-01-018-38
Emission Factor (lbs/ton)	6.7
Potential Emissions (tons/yr)	73.05

Potential to Emit

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)

Appendix A - Emission Calculations

The Steam Kettle has two distinct uses. The Steam Kettle is used to recover solvent for solvent laden water generated for the resin kettles and is also used to warm blend anodic and cathodic acrylic coatings. The emissions factors for each operating senario are specified below:

- A. The Steam Kettle is used to recover solvents from solvent laden water generated from the resin kettles condensers. The Steam kettle separates the solvent form the water by heating the solvent laden water and collecting the solvents in a condenser. The VOC emissions factor for the Steam Kettle when used as a solvent recovery unit has been developed based on a material balance sheets produced by Lilly Industries.
- B. The Steam Kettle is also used to warm blending of anodic and cathodic acylic coatings. The VOC emission factor for the Steam Kettle during times when the kettle is used for warm blending was calculated as follows:

DATA INPUT/ASSUMPTIONS

Warm blending of cathotic coatings represent the worst case VOC emissions.
The Steam kettle is controlled by a condenser
Most of the solvent is Ethanol
The data inputs for calculating the VOC emissions factor are as follows:

Molecular Weight of Ethanol =	44 lb/lb-mole
Vapor Pressure @ 100 degrees F =	2.38 psia
Ventilation flowrate =	2 scfm
Batch size =	12,400 lbs
Batch process time =	12 hr
Maximum outlet temperature of condenser	100 F

EMISSIONS FACTOR CALCULATIONS:

$$(2 \text{ scfm}) \times (2.38 \text{ psi}/14.7 \text{ psi}) \times (0.075 \text{ lb}/\text{ft}^3 \text{ air}) \times (44 \text{ lbs Ethanol}/29 \text{ lbs Air}) \times (60 \text{ min}/\text{hr}) \times (12 \text{ hr}/\text{bat}) = 26.53 \text{ lbs}/\text{batch}$$
$$(26.53 \text{ lbs VOC}/\text{batch})/(6.2 \text{ tons coating}/\text{batch}) = 4.28 \text{ lbs VOC}/\text{ton coating blended}$$

POTENTIAL EMISSIONS

The warm blending of coatings represents the worst case emission rate, therefore the potential emissions are based on warm blending of coatings as follows:

Batch process time	12 hrs
Pounds of VOC generated per batch	26.53 lbs/batch
Maximum number of batches produced per year	730 batches/yr
Potential VOC emissions	9.68 tons/yr

LIMITED POTENTIAL TO EMIT

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)

Appendix A - Emission Calculations

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Emission unit I.D.	OSB
Heat input capacity (MMBtu/hr)	14.5
Heat Content of #2 Fuel Oil (Btu/gal)	145000
Heat Content of Natural Gas (BTU/cf)	1000
Maximum Firing Rate #2 Fuel Oil (Mgal/hr)	0.1
Maximum Firing Rate Natural Gas (MMcf/h)	0.0145
S = Weight % Sulfur	0.5 %
Date Installed	1960

Potential Emissions

Pollutant	PM	PM-10	SO ₂	NO _x	VOC	CO	Lead
Distillate Oil (lb/kgal) AP-42	2	1	71	20	0.2	5	0
Natural Gas (lbs/MMcf) AP-42	14	14	0.6	140	2.784	35	0
Pollutant	PM	PM-10	SO ₂	NO _x	VOC	CO	Lead
Distillate Oil	0.88	0.44	31.10	8.76	0.09	2.19	0.00
Natural Gas	0.89	0.89	0.04	8.89	0.18	2.22	0.00
Potential Emissions	0.89	0.89	31.10	8.89	0.18	2.22	0.00

Methodology:

1 gallon of No. 2 Fuel Oil has a heating value of 145,000 Btu, Natural Gas has a heating value of 1000 Btu/cf.

Emission Factors are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-02-005-01/02/03) for Distillate Oil and AP-42, Tables 1.4-1, 2.3, and 5 for Natural Gas

Emissions from Distillate Oil Combustion - Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Emissions from Natural Gas Combustion - Emission (tons/yr) = Throughput (MMcf/ yr) x Emission Factor (lb/MMcf)/2,000 lb/ton

Limited Potential to Emit

Pollutant	Regulation	Limitation
PM	326 IAC 6-2-2	0.57 lbs/MMBtu
SO ₂	326 IAC 7-2.1-2	0.5 lbs/MMBtu when combusting distillate oil

The PTE for PM was calculated as follows:

$$\begin{aligned}
 Pt &= 0.87/Q^{0.16} \\
 Pt &= 0.57 \text{ lbs/MMBtu} \\
 Q &= 14.5 \text{ MMBtu/hr}
 \end{aligned}$$

Appendix A - Emission Calculations

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Emission unit I.D.	YSB
Heat input capacity (MMBtu/hr)	29
Heat Content of #2 Fuel Oil (Btu/gal)	145000
Heat Content of Natural Gas (BTU/cf)	1000
Maximum Firing Rate #2 Fuel Oil (Mgal/hr)	0.2
Maximum Firing Rate Natural Gas (MMcf/h)	0.029
S = Weight % Sulfur	0.5 %
Date Installed	1982

Potential Emissions

Pollutant	PM	PM-10	SO ₂	NO _x	VOC	CO	Lead
Distillate Oil (lb/kgal) AP-42	2	1	71	20	0.2	5	0
Natural Gas (lbs/MMcf) AP-42	14	14	0.6	140	2.784	35	0

Pollutant	PM	PM-10	SO ₂	NO _x	VOC	CO	Lead
Distillate Oil	1.75	0.88	62.20	17.52	0.18	4.38	0.00
Natural Gas	1.78	1.78	0.08	17.78	0.35	4.45	0.00
Potential Emissions	1.78	1.78	62.20	17.78	0.35	4.45	0.00

Methodology:

1 gallon of No. 2 Fuel Oil has a heating value of 145,000 Btu, Natural Gas has a heating value of 1000 Btu/cf.

Emission Factors are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-02-005-01/02/03) for Distillate Oil and AP-42, Tables 1.4-1, 2.3, and 5 for Natural Gas

Emissions from Distillate Oil Combustion - Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Emissions from Natural Gas Combustion - Emission (tons/yr) = Throughput (MMcf/ yr) x Emission Factor (lb/MMcf)/2,000 lb/ton

Potential to Emit

Pollutant	Regulation	Limitation
PM	326 IAC 6-2-2	0.57 lbs/MMBtu
SO ₂	326 IAC 7-2.1-2	0.5 lbs/MMBtu

The PTE for PM was calculated as follows:

$$\begin{aligned}
 Pt &= 0.87/Q^{0.16} \\
 Pt &= 0.48 \text{ lbs/MMBtu} \\
 Q &= 43.5 \text{ MMBtu/hr}
 \end{aligned}$$

Potential VOC Emissions from Equipment Leaks

Hourly emissions are based on the number of pipeline components and EPA equipment leak emission factors (Table 2-1, SOCM I Average Emission Factors, "US EPA, Protocol for Equipment Leaks Emissions Estimates, June 1993). Annual emissions were calculated by multiplying the hourly emission rate by 8760 hour of operation. Emission calculations assume 20% of total components are inservice at any one time.

VOC EMISSIONS FROM EQUIPMENT LEAKS						
Equipment Component Type	Equipment Service Category	Number of Components per solvent line	Emissions Factor (lbs/hr/component)	Hourly VOC Emissions (lbs/hr)	Hours in service (hr/yr)	Annual VOC Emissions (tons/yr)
Connectors	Light Liquid	792	0.00403	3.19	8760	13.98
Valves	Light Liquid	75	0.00888	0.67	8760	2.92
Pumps	Light Liquid	5	0.04387	0.22	8760	0.96
Open-ended lines	Light Liquid	43	0.00375	0.16	8760	0.71
				4.24		18.56

Appendix A - Emission Calculations

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Emission Unit	SB28
Emissions Unit Description	Paint booth for coating of Totes
Type of Control Device	Dry Filter
Type Application System	Air Atomization
Stack ID	SB28
Stack Flow Rate (acfm)	6500
Date Installed	1977

Potential Emissions

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Maximum Usage (gal/hr)
Enamel	9.9	46.00%	0.0%	46.0%	0.0%	54.00%	2.000

Material	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids
Enamel	4.55	4.55	9.11	218.59	39.89	37.46	8.43

Material	Transfer Efficiency
Enamel	20%

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lb)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

Potential to Emit

Pollutant	Regulation	Limitation
VOC	326 IAC 8-6	(SEE PAGE 13)
PM (1)	326 IAC 6-3	E = 4.1x (P) ^{0.67}

(1) The throughput varies therefore only the equation is listed.

Appendix A - Emission Calculations

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Insignificant Emitting Activities

Storage Tanks

Lilly Industries operates 170 above ground storage tanks ranging in size from 180 to 9,608 gallons to hold organic solvents and solvent based resins used in paints. The tanks emit VOCs to the atmosphere through vents due to vapor displacement (working loss) and temperature changes (standing loss). The annual emissions were estimated using the TANK III program. Based on the emissions data submitted the total emission loss for all the tanks combined is 0.6 tons of VOC emissions.

Seven QA Paint Booths

Lilly Industries operates seven QA paint spray booths. The surface of of test materials are coated for product development and quality control. Lilly Industry estimates that approximately one gallon of coating and 0.08 gallons of thinner is used in each booth per day.

Estimated Coating Usage	1 gallon per booth	
Estimated VOC Content of Coating	3.4 lbs VOC/gal	
Estimated Thinner Usage	0.08 gallons per booth	
Estimated Thinner Density	6.5 lbs/gallon	
Estimated VOC Content of Thinner	100.00%	
Potential VOC emissions per booth	3.92 lbs/day	0.72 tons/yr
Potential VOC emissions for all booths	5.01 tons/yr	

Solvent Recovery Unit

Lilly Industries operates a Luwa Thin Film Evaporator to reclaim solvent from waste material. The unit operates under a vacuum typically 28 in W.G. pulled at the condenser end of the unit. The annual VOC emissions were estimated using the method for vacuum generating units as outlined in U.S. EPA CTG document about batch processing. The VOC emissions were estimated to be 0.24 lbs/hr. Assuming the unit operates on a continous basis the potential emissions would be 5.76 lbs/day and 1.05 tons per year.

Tank Cleaning

Lilly Industries cleans paint formulation equipment with organic solvents. The emissions calculations assume a .4 percent loss factor due to evaporation, and a cleanup solvent usage rate of 10 lbs per 1000 lbs of coatings formulated.

Potential amount of coating formulated	94.06 million lbs (assumes source is operating at 50% capacity)
1995 actual amount of coatings formulated	47.03 million lbs
Usage Factor	10 lbs/1000 lbs formulated
Loss Factor	0.4 %
Actual Emissions	0.9406 tons/yr
Potential Emissions	1.8812 tons/yr

Pilot Resin Kettle

Lilly industries operates a pilot resin kettle used for reseach and development and was installed in 1979. The pilot resin kettle is controlled by a condenser. The batch process weight is 800 pounds and the minimum cycle time per batch is 10 hours. The potential VOC emissions were calculated as follows using the Air Emission factor of 4.8 lbs of VOC per ton of polyester/alkyd resin produced:

Minimum Batch Cycle Time	10 hours
Weight resin produced per batch	800 lbs
Maximum weight of resin produced per year	350.4 tons
Potential Emissions	0.84 tons/yr

Cold Cleaner Units

Lilly Industries uses cold solvent cleaners, known as "soup tanks", throughout the production areas. These soup tanks are used for cleaning production related tools and small machine parts. The soup tanks are charged with "reclaim", a mixture of organic solvents used in the production of coating at the facility. The reclaim is produced using the solvent distillation system located at the source. Each soup tank is equipped with a cover that automatically closes after use. The operator steps on a foot actuator bar to open the cover for use. There are also soup tanks used in the laboratory area, these tanks are typically much smaller and require manually opening and closing the tanks by hand. This emission unit was classified as insignificant since the actual solvent usage is less than 145 gallons per 12 months according to item 11 on Form GSD-10(a).

Appendix A - Emission Calculations

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Potential Emissions Source Wide

Significant Emitting Activities	PM	PM-10	SO2	NOx	VOC	CO	Lead
Coating Formulation/Packaging, CF-1	29.30	29.30	0.00	0.00	248.53	0.00	0.00
Brighton Resin Kettle, BRK	0.32	0.32	0.02	2.70	149.66	0.57	0.00
Electro-Vapor Resin Kettle, EVRK	0.00	0.00	0.00	0.00	149.52	0.00	0.00
Thinning Tank, TT	0.00	0.00	0.00	0.00	73.05	0.00	0.00
York Shipley Boiler, YSB	1.78	1.78	62.20	17.78	0.35	4.45	0.00
Orr and Sembower Boiler, OSB	0.89	0.89	31.10	8.89	0.18	2.22	0.00
Fugitive Leaks, F-1	0.00	0.00	0.00	0.00	18.56	0.00	0.00
Steam Kettle, SK	0.00	0.00	0.00	0.00	9.68	0.00	0.00
Total Emissions	32.29	32.29	93.31	29.37	649.54	7.24	0.00

Insignificant Emitting Activities	PM	PM-10	SO2	NOx	VOC	CO	Lead
Tank Cleaning (Misc., Tank Cleaning Machine and Totes Cleaning Machine)	0.00	0.00	0.00	0.00	1.88	0.00	0.00
Storage Tanks	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Solvent Recovery Unit	0.00	0.00	0.00	0.00	1.05	0.00	0.00
Seven QA Test Booths	0.00	0.00	0.00	0.00	5.01	0.00	0.00
Pilot Resin Kettle	0.00	0.00	0.00	0.00	0.84	0.00	0.00
Parts Cleaning, PC	0.00	0.00	0.00	0.00	0.53	0.00	0.00
Total Emissions	0.00	0.00	0.00	0.00	9.91	0.00	0.00

Total Potential Emissions Source Wide	32.29	32.29	93.31	29.37	659.45	7.24	0.00
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Appendix A - Emission Calculations

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Potential to Emit VOC

Since the following units were all existing as of January 1, 1980, and are not regulated under any other provisions of Article 8 and the combined potential emissions exceeds 100 tons per year the Organic Solvent Regulations 326 IAC 8-6 applies. Lilly Industries has opted to limit the PTE for VOC to less than 100 tons per year such that the 326 IAC 8-6 does not apply.

The Permittee is required to track the monthly emissions from these emissions units to ensure compliance with the 77.8 ton per year emissions limitation taken to avoid applicability of 326 IAC 8-6	
Coating Formulation (CF)	
Product Loading (Cp)	
Brighton Resin Kettle (BRK)	
Electric Vapor Resin Kettle (EVRK)	
Thinning Tank (TT)	
Steam Kettle (SK)	
Tank Cleaning (Misc., Tank Cleaning Machine and Totes)	
Six QA Test Booths	
	77.7
The VOC emissions from these emissions units are fixed and are based on Potential emissions in order to reduce the record keeping and reporting requirements for the source	
Orr and Sembower Boiler	0.2
Pilot Resin Kettle	0.8
Fugitive Leaks	18.6
Storage Tanks	0.6
Solvent Recovery Unit	1.1
Total Emissions for units with a fixed emission rates	21.3
Total Emissions	99

Note that the VOC emissions from the York Shipley Boiler are not limited by the Organic Solvent Regulation 326 IAC 8-6, since this facility was installed after 1/1/80.

Note that the VOC emissions from Parts Cleaners are not limited by the Organic Solvent Regulation 326 IAC 8-6, since they are regulated under 326 IAC 8-3-5.

Appendix A - Emission Calculations

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HAP Emissions Estimates

Cass Number	Compound Name	Individual HAP Usage (lbs)	Percent Liquid HAP Usage(g) (%)	Actual Individual HAP Emissions(h) (tons/yr)	Potential to Emit Individual HAP(i) (tons/yr)
1330-20-7	Xylene	3,728,171	43.70%	12.19	18.22
108-88-3	Toluene	846,582	9.92%	2.77	4.14
100-41-4	Ethyl Benzene	595,722	6.98%	1.95	2.91
78-59-1	Isophorone	429,970	5.04%	1.41	2.10
108-10-1	MIBK	297,122	3.48%	0.97	1.45
78-93-3	MEK	239,699	2.81%	0.78	1.17
67-56-1	Methanol	197,614	2.32%	0.65	0.97
91-20-3	Napthalene	188,212	2.21%	0.62	0.92
107-21-1	Ethylene Glycol	59,020	0.69%	0.19	0.29
50-00-0	Formaldehyde	33,201	0.39%	0.11	0.16
98-82-8	Cumene	22,182	0.26%	0.07	0.11
100-42-5	Styrene Monomer	16,757	0.20%	0.05	0.08
121-44-8	Triethylamine	7,760	0.09%	0.03	0.04
80-62-6	Methyl Methacrylate	1,626	0.02%	0.01	0.01

GLYCOL ETHERS

111-76-2	Butyl Cellosolve/EB	1,635,973	19.18%	5.35	7.99
112-34-5	Butyl Carbitol/DB	113,985	1.34%	0.37	0.56
2807-30-9	Propyl Cellosolve/EP	102,335	1.20%	0.33	0.50
112-25-4	Glycol Ether EH	15,838	0.19%	0.05	0.08
Total Glycol Ethers		1,868,131	21.90%	6.11	9.13

7440-47-3	Chromium	40,249			(k)
85-44-9	Phthalic Anhydride	689,383			(k)

Total Liquid HAP Usage (a)	8,531,769 lbs				
Total Liquid VOC Usage (a)	20,466,088 lbs				
HAP % of Liquid VOC (b)		41.69%			
Total VOC Emissions (c)				66.9 tons/yr	
Total PTE for VOC (d)				100 tons/yr	
Total HAP Emissions (e)				27.89 tons/yr	
Total PTE for HAPs (f)				41.69 tons/yr	

(a). Individual HAP Usage, Liquid HAP Usage, and Liquid VOC Usage are based on the raw materials that comprise 90% of the total raw material usage. These values are derived from 1995 raw usage speciation.

(b). HAP % of Liquid VOC = Total Liquid HAP Usage/Total Liquid VOC Usage x 100

(c). Total VOC emissions are based on 1995 emission calculations

(d). Total PTE for VOC is based on limiting the VOC emissions to less than 100 TPY such that 326 IAC 8-6 shall not apply.

(e). Total HAP Emissions = HAP % of Liquid VOC x Total VOC Emissions (1995 VOC emissions)

(f). Total PTE for HAPs = HAP % of Liquid VOC x Total PTE VOC (100 TPY)

(g). Percent of Liquid HAP Usage = Individual HAP Usage/Liquid HAP Usage x 100

(h). Actual Individual HAP Emissions = Percent of Liquid HAP Usage x Total HAP Emissions

(i). PTE Individual HAP = Percent of Liquid HAP Usage x Total PTE for HAPs

(k). Particulate HAP emissions were assumed to be minor since the total PM emissions are low.